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"Application of Photoelectron Spectroscopy to Practical Semiconductor Interfaces"

Photoelectron spectroscopy (both core level and valence band) is an ideal tool for studying the properties of practical semiconductor interfaces. Although such studies have been going on for over 30 years, new devices, materials and processes have actually brought new life into the application of these well known techniques. In this talk, several applications will be discussed including chemical cleaning of InP, GaAs and GaN surfaces as well as the atomic and electronic structure of CsO/(III-V) negative electron affinity surfaces. In these examples, the spectroscopic information is providing new insights that influenced the device applications of these interfaces.

In addition, a brief update will be provided on the commissioning progress for SPEAR3 and the ongoing experiments at the Sub-Picosecond Photon Source at SLAC.